

REGULATION 1.07 Excess Emissions During Startups, Shutdowns, and Malfunctions

Air Pollution Control District of Jefferson County

Jefferson County, Kentucky

Relates to: KRS Chapter 77 Air Pollution Control

Pursuant to: KRS Chapter 77 Air Pollution Control

Necessity and Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation establishes the notification, reporting, and operational requirements for the owner or operator of a stationary source when excess emissions occur as a result of a startup, shutdown, or malfunction.

SECTION 1 Definitions

Terms used in this regulation that are not defined in this regulation shall have the meaning given to them in Regulation 1.02 *Definitions*.

- 1.1 “Bypass” means the intentional diversion of air contaminants from air pollution control equipment or process equipment that normally reduces the emission of the air contaminants.
- 1.2 “Excess emissions” means emissions that exceed an applicable emission standard. If there is not an applicable emission standard for a toxic air contaminant established pursuant to the requirements of Regulation 5.21 *Environmental Acceptability for Toxic Air Contaminants* (an applicable emissions standard would include a surrogate emission standard, such as volatile organic compounds that would include that toxic air contaminant, for which environmental acceptability has been demonstrated pursuant to Regulation 5.21), then, for the purpose of the notification and reporting requirements of this regulation, excess emissions shall also include an appreciable increase in the emissions of a toxic air contaminant above the routine level of emissions that results from a startup, shutdown, or malfunction.

SECTION 2 Excess Emissions

- 2.1 The owner or operator of a process or process equipment has a general duty to ensure that the emissions from the process or process equipment are in compliance with all emission standards at all times. This includes starting up and shutting down the process or process equipment in a manner that the emissions are in compliance with all applicable emission standards and, consistent with safe operating procedures, stopping input feed to the process or process equipment and shutting down the process or process equipment if excess emissions would likely result from a malfunction.
- 2.2 Excess emissions from a process or process equipment due to startup, shutdown, or malfunction shall be deemed in violation of the applicable emission standard.
- 2.3 In determining the appropriate enforcement action for excess emissions, the District may consider the following factors:
 - 2.3.1 The duration and frequency of excess emissions during startups, shutdowns, malfunctions,
 - 2.3.2 Whether the excess emissions could have been prevented through careful planning and design,

- 42 2.3.3 Whether the excess emissions are part of a recurring pattern indicative of inadequate
43 design, operation, or maintenance,
- 44 2.3.4 Whether the process or process equipment was, at all times, operated in a manner
45 consistent with good practices for minimizing emissions,
- 46 2.3.5 For a malfunction, whether the owner or operator, consistent with safe operating
47 procedures, stopped input feed to the process or process equipment and shut down the
48 process or process equipment as soon as possible,
- 49 2.3.6 For excess emissions during a startup or shutdown, the extent to which the owner or
50 operator complied with the provisions of section 3.6,
- 51 2.3.7 For excess emissions during a malfunction, the extent to which the owner or operator
52 complied with the provisions of section 4.4, and
- 53 2.3.8 For a malfunction, whether the excess emissions were the result of an unavoidable
54 malfunction. To be deemed an unavoidable malfunction, the owner or operator of the
55 process or process equipment shall demonstrate, through properly signed,
56 contemporaneous operating logs or other relevant evidence, all of the following:
- 57 2.3.8.1 The excess emissions were the result of an identified sudden and reasonably
58 unforeseeable event beyond the control of the owner or operator, including forces of
59 nature,
- 60 2.3.8.2 Corrective action to restore normal operation of the process or process equipment
61 was required,
- 62 2.3.8.3 The excess emissions were not caused by improperly designed equipment, lack of
63 preventive maintenance, careless or improper operation, or operator error, and
- 64 2.3.8.4 The process or process equipment was, at the time of the malfunction, being properly
65 operated.
- 66 2.4 Nothing in this regulation shall be construed to restrict the District's discretion to take, at any
67 time, appropriate enforcement action under KRS Chapter 77 if, upon information supplied
68 to the District pursuant to this regulation or otherwise available to the District, the District
69 determines that this action is necessary to protect public health or welfare. Further, nothing
70 in this regulation shall be construed to restrict any person from seeking injunctive relief from
71 an excess emission.
- 72 2.5 The owner or operator of a process or process equipment for which there are excess
73 emissions shall comply with the following requirements, as applicable:
- 74 2.5.1 For startups and shutdowns, Section 3, and
- 75 2.5.2 For malfunctions, Section 4.
- 76 2.6 If a notification or report to the District is required pursuant to this regulation to be in
77 writing, then compliance with the deadline shall be established as follows:
- 78 2.6.1 If the notification or report is sent via mail, then the date and time as postmarked by the
79 U.S. Postal Service,
- 80 2.6.2 If the notification or report is sent via facsimile, then the date and time received by the
81 District as indicated on the printed copy received by the District,
- 82 2.6.3 If the notification or report is sent via electronic mail, then the date and time identified
83 as sent by the electronic mail received by the District, and
- 84 2.6.4 If the notification or report is hand-delivered to the District's office, then the date and
85 time received by the District as stamped by the District.
- 86 2.7 The owner or operator of a process or process equipment that is subject to a notification or

reporting requirement pursuant to this regulation may request, and the District may, for cause, approve an extension of the deadline for submitting the information for one or more elements of the notification or report. The owner or operator may make this request by telephone, facsimile or electronic mail. If the request is made by telephone, then the owner or operator shall submit, by the end of that day, a confirmation written request by facsimile, electronic mail, or mail.

SECTION 3 Startup or Shutdown

- 3.1 If excess emissions during any planned startup or shutdown are expected to occur, then the owner or operator of the process or process equipment shall notify the District in writing no later than 3 days before the planned startup or shutdown.
- 3.2 If an unplanned startup or shutdown during which excess emissions are expected to occur is necessitated by events, other than a malfunction, that the owner or operator could not reasonably have foreseen 3 days before the startup or shutdown, then the notification shall be given to the District by telephone, facsimile, or electronic mail within 1 hour after the decision to start up or shut down the process or process equipment was made, and, if the notification is given by telephone, in writing as promptly as possible, but no later than the end of the day during which that decision was made.
- 3.3 If an unplanned startup or shutdown pursuant to section 3.2 begins outside of the District's regular business hours (8:00 a.m. to 5:00 p.m. on Monday to Friday, not including holidays) and the initial written notification pursuant to section 3.2 was not available to the District during regular business hours, then, in addition to that written notification, the owner or operator of the process or process equipment shall leave a message on the District's main telephone line [(502) 574-6000] containing the information required by sections 3.5.1, 3.5.3, 3.5.4, and 3.5.6, and the name and telephone number of a contact person at the stationary source.
- 3.4 An unplanned startup or shutdown during which excess emissions are expected to occur that is necessitated by a malfunction shall be treated as part of the malfunction pursuant to Section 4.
- 3.5 The written planned or unplanned startup or shutdown initial notification pursuant to section 3.1 or 3.2 shall include the following information:
- 3.5.1 The name and location of the stationary source,
- 3.5.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 3.5,
- 3.5.3 The process or process equipment involved in the startup or shutdown,
- 3.5.4 The scheduled date and time for the beginning of the startup or shutdown process, the expected duration of the startup or shutdown process, and the expected time period during which excess emissions are expected to occur,
- 3.5.5 The physical and chemical composition and estimated quantity and concentration of excess emissions for each air contaminant,
- 3.5.6 The reason for and necessity of the startup or shutdown,
- 3.5.7 The reason the startup or shutdown could not be accomplished without causing excess emissions, and
- 3.5.8 An explanation as to how the provisions of section 3.6 will be met.
- 3.6 If excess emissions during a startup or shutdown of a process or process equipment are

expected to occur, then the owner or operator of the process or process equipment shall comply with all of the following:

- 3.6.1 All reasonable, available, and practical emission reduction measures, including process equipment design, operating procedures, and pollution prevention measures, shall be used to prevent or minimize excess emissions,
- 3.6.2 The frequency and duration of operation of the process or process equipment in the startup or shutdown mode shall be minimized to the maximum extent practicable,
- 3.6.3 A bypass of any related control equipment shall not occur unless necessary to prevent loss of life, personal injury, or severe property damage, and the extent and duration of any bypass shall be minimized to the maximum extent practicable, and
- 3.6.4 All emission and parametric monitoring systems for the process or process equipment shall be operated unless technically infeasible.
- 3.7 If a person has notified the District pursuant to section 3.1, 3.2, or 3.3 but no excess emission occurred as the result of the startup or shutdown, then the owner or operator of the process or process equipment shall send a written report to the District that includes the name and telephone number of a contact person at the stationary source and the information required by sections 3.8.1, 3.8.3, and 3.8.4, except indicating that no excess emission occurred. The written report may be sent by mail, facsimile, or electronic mail, and shall be sent no later than the end of the next working day following the completion of the startup or shutdown.
- 3.8 No later than the end of the next working day following the completion of a startup or shutdown during which excess emissions occurred, whether or not initial notification of the startup or shutdown pursuant to section 3.1, 3.2, or 3.3 was made to the District, the owner or operator of the process or process equipment shall send a written report to the District that includes the following information:
 - 3.8.1 The name and location of the stationary source,
 - 3.8.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 3.8,
 - 3.8.3 The process or process equipment involved in the startup or shutdown,
 - 3.8.4 The actual date and time of the beginning of the startup or shutdown process, the actual duration of the startup or shutdown process, and the actual time period during which excess emissions occurred,
 - 3.8.5 The physical and chemical composition and calculated quantity and concentration of excess emissions for each air contaminant,
 - 3.8.6 An explanation as to how each provision of section 3.6 was met, and
 - 3.8.7 The frequency of excess emissions during startups or shutdowns during the previous 2 years.

SECTION 4 Malfunction

- 4.1 If excess emissions from a process or process equipment resulting from a malfunction, or from an unforeseen startup or shutdown necessitated by a malfunction, occur or are likely to occur, the owner or operator of the process or process equipment shall, as promptly as possible, but no later than 1 hour following the start of the malfunction, notify the District by telephone, facsimile, or electronic mail.
- 4.2 The initial notification of the malfunction pursuant to section 4.1 shall include the following information:

- 175 4.2.1 The name and location of the stationary source,
176 4.2.2 The name, address, telephone number, and electronic mail address of the person
177 responsible for providing the information required by section 4.2,
178 4.2.3 The process or process equipment involved in the malfunction,
179 4.2.4 The date and time of the beginning of the malfunction, the estimated time before,
180 consistent with safe operating procedures, input feed to the process or process equipment
181 will be stopped and the process or process equipment shut down or the process or process
182 equipment is returned to normal operation, whichever is earlier (the excess emissions
183 end), and the estimated time period during which excess emissions are likely to occur,
184 4.2.5 To the extent that it can reasonably be determined within the context of the
185 circumstances, the physical and chemical composition and estimated quantity and
186 concentration of excess emissions for each air contaminant,
187 4.2.6 If known or suspected, the likely cause of the malfunction, and
188 4.2.7 If applicable and known, the reason the processes or process equipment will not be shut
189 down immediately, consistent with safe operating procedures.
190 4.3 If the initial notification pursuant to section 4.1 is required to be made at a time outside of
191 the District's regular business hours (8:00 a.m. to 5:00 p.m. on Monday to Friday, not
192 counting holidays), then, in addition to that initial notification, the owner or operator of the
193 process or process equipment shall leave a message on the District's main telephone line
194 [(502) 574-6000] containing the information required by sections 4.2.1, 4.2.3, 4.2.4, 4.2.6,
195 and 4.2.7, and the name and telephone number of a contact person at the stationary source.
196 4.4 If excess emissions during a malfunction of a process or process equipment occur or are
197 likely to occur, then the owner or operator of the process or process equipment shall comply
198 with all of the following:
199 4.4.1 All reasonable, available, and practical emission reduction measures, including process
200 equipment design, operating procedures, pollution prevention measures, use of off-shift
201 labor and overtime, and, consistent with safe operating procedures, immediately stopping
202 input feed to the process or process equipment and shutting down the process or process
203 equipment, shall be used to prevent or minimize excess emissions,
204 4.4.2 The frequency and duration of operation of the process or process equipment in a
205 malfunction mode shall be minimized to the maximum extent practical,
206 4.4.3 A bypass of any related control equipment shall not occur unless necessary to prevent
207 loss of life, personal injury, or severe property damage, and the extent and duration of
208 any bypass shall be minimized to the maximum extent practicable, and
209 4.4.4 All emission and parametric monitoring systems for the process or process equipment
210 shall be operated unless technically infeasible.
211 4.5 If a person has notified the District pursuant to section 4.1 or 4.3 but no excess emission
212 occurred as the result of the malfunction, then the owner or operator of the process or process
213 equipment shall send a written report to the District that includes the name and telephone
214 number of a contact person at the stationary source, the information required by sections
215 4.6.1, 4.6.3, and 4.6.4, and the statement that no excess emission occurred. The written
216 report may be sent by mail, facsimile, or electronic mail, and shall be sent no later than the
217 end of the next working day after the input feed to the process or process equipment is
218 stopped and the process or process equipment is shut down or the process or process
219 equipment is returned to normal operation after the occurrence of a malfunction, whichever

is earlier.

4.6 No later than 1 hour after the excess emissions ended, the owner or operator of the process or process equipment shall notify the District by telephone, facsimile, or electronic mail. If this notification is made by telephone, the owner or operator shall provide written notification by facsimile or electronic mail by the end of that day. The written notification of the end of the malfunction shall include the following information:

4.6.1 The name and location of the stationary source,

4.6.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 4.6,

4.6.3 The process or process equipment involved in the malfunction,

4.6.4 The date and time that the excess emissions ended, and

4.6.5 If the initial notification to the District pursuant to section 4.6 was made by telephone, then the time that the telephone notification was made.

4.7 No later than 15 calendar days after the excess emissions ended, the owner or operator of the process or process equipment shall send a written report to the District that includes the following information:

4.7.1 The name and location of the stationary source,

4.7.2 The name, address, telephone number, and electronic mail address of the person responsible for providing the information required by section 4.7,

4.7.3 The process or process equipment involved in the malfunction,

4.7.4 Confirmation of the actual date and time that the excess emissions ended,

4.7.5 The physical and chemical composition and calculated quantity and concentration of excess emissions for each air contaminant,

4.7.6 An explanation as to how each provision of section 4.4 was met, and

4.7.7 Any additional information requested by the District.

4.8 No later than 60 days after the excess emissions ended, the owner operator of the process or process equipment shall send a written report to the District that includes the following information:

4.8.1 An analysis of the cause of the malfunction and the steps that will be taken to prevent or minimize similar occurrences in the future, and

4.8.2 The frequency of excess emissions resulting from malfunctions during the previous 2 years of the same or similar process or process equipment or that occurred because of the same or similar cause.

SECTION 5 Extended Malfunction

5.1 If correcting the excess emissions from a process or process equipment resulting from a malfunction is anticipated to exceed 30 days and the owner or operator does not shut down the process or process equipment, then the owner or operator shall, within seven days of the beginning of the excess emissions, request, in writing, that the District initiate a Board Order. This request shall include a written program outlining a time schedule and corrective actions to abate the excess emissions. The time schedule may include a period for engineering review and analysis of the cause of the excess emissions and design of modifications to effect compliance with the emission standards. The owner or operator shall, in a timely manner, submit all information requested by the District.

5.2 Any resulting Board Order shall include a time schedule and required actions to comply with

264 the emission standards and the appropriate penalty for the excess emissions.

265 Adopted v1/4-19-72; effective 4-19-72; amended v2/9-1-76, v3/6-13-79, v4/11-16-83, v5/12-15-93,
266 v6/6-21-95, v7/1-17-96.